
Extended Abstract

School Surveys on Alcohol Use in Turkey: Are They Policy Oriented?

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Abstract

Public Health research should aim to influence policies, and therefore researchers should determine the issues and highlight the salient problems and possible solutions in their area of interest. It is suggested that delaying the onset of alcohol consumption among youth has a positive impact on health and social development. This study aims to review existing school surveys with regard to the availability of information which can influence policies, so as to guide future research. A wealth of cross-studies was found on harmful habits including alcohol use conducted among 18-year-old youths and under. Twenty-eight scientific articles and one report met the inclusion criteria and these were reviewed. A prevalence of lifetime drinking was found to range between 4.4% and 65.0%. This literature review emphasizes the importance of well-designed studies on alcohol consumption in this young age group. Temporal and spatial comparisons as well as individual and population level determinants of early-onset and harmful drinking should be explored in order to formulate effective policies for youths.

Keywords: Alcohol use • Alcohol policies • Adolescence • School studies • Literature review

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The consumption of alcohol over a certain amount is linked to around 60 acute and chronic health conditions (Gutjahr, Gmel, & Rehm, 2001). Furthermore, binge drinking leads to risky behaviors and as a result, to traffic accidents, violence, and social problems (Babor et al., 2010). In that sense alcohol use can be comparable to drug use rather than to smoking.

In Turkey, per capita pure alcohol consumption in the drinkers-only population is higher than that of countries with high alcohol consumption (WHO, 2014; WHO Europe, 2014). For example, figures from a national study (Sağlık Bakanlığı, 2013) suggest that there are 100,000 harmful users in Istanbul. In the National Burden of Disease Study, alcohol abuse was ranked third among men among the causes of YLD (Years Living with a Disability) and twelfth in DALYs (Disability-Adjusted Life Years) nationally (Sağlık Bakanlığı, 2006a, 2006b).

Social and health related problems linked to alcohol use can be tackled through the development and implementation of effective population policies (Anderson, Chisholm, & Fuhr, 2009; Babor et al., 2010; Brand, Saisana, Rynn, Pennoni, & Lowenfels, 2007; Paschall, Grube, & Kypri, 2009). Literature suggests that it is imperative to inform decision makers regarding the importance and preventability of a problem in order to ensure the development of policies that address Public Health problems (Anderson et al., 2005). A pioneer in policy development, Harold Lasswell, emphasized the need for “policy orientation” in research, and with “policy orientation” he stressed the importance of meeting the intelligence needs of decision makers and also the development of a science of policy forming (Lasswell, 1951).

Epidemiological studies on alcohol consumption aim to provide decision makers with information on the effectiveness of control policies as well as on consumption details. For example, a body of research is available on the effectiveness of school-based interventions (Hennessy & Tanner-Smith, 2014; Strøm, Adolfsen, Fossum, Kaiser, & Martinussen, 2014). Although there is now an emphasis on the protection of “non-drinking” in cultures where abstinence is widespread (Bakke, 2015), studies on alcohol are mainly conducted in Western countries, and hence the results may not always be applicable to such cultures.

Globally, the risk behaviors of adolescents are monitored through survey systems (Centers for Disease Control and Prevention, 2014; ESPAD, 2012). An associ-

ation between risk behaviors and early-onset smoking, alcohol use, and drug use is suggested (DuRant, Kreiter, Krowchuk, & Smith, 1999). Although many risk factor studies, including alcohol use, have been conducted in schools, in Turkey, their findings have not been explored as to whether they can contribute to policy making. Therefore, this study aims to review existing school surveys with regards to the availability of information which can influence policies.

Method

This study was designed as a narrative literature review. The databases EBS-CO Medline Complete, Academic Search Complete, PubMed, Ulakbim, Ovid MD Plus, The Cochrane Library, Biomed Central, BMJ Journal Collection, UpToDate, Clinical Key, and Google Scholar were searched using “Alkol kullanımı,” “Alkol tüketimi,” “Alkol içme,” “Alkol bağımlılığı,” “Prevalence of alcohol use in Turkey,” and “Prevalence of alcohol consumption in Turkey” as search terms. The reference lists of the articles were also checked to locate studies published before 2015.

Inclusion criteria:

(1) Frequency of alcohol use is reported. (2) Individuals aged 18 and under are included in the sample. (3) Study population are residents in Turkey. (4) It was published in Turkish or English. (5) It was published before January, 2015. (6) Full paper or abstract is available via aforementioned databases. (7) The study was conducted in schools.

Exclusion criteria:

1. Results are not reported separately for the 18 and under age group, in studies where adults were covered as well.

Studies were reviewed to search for the availability of predetermined policy-relevant information as listed below:

1. Sampling and response rate as indicators of representativeness

2. Availability of information on drinking:

- i. Age of first use
- ii. Consumption details
 - a. Amount and frequency of consumption
 - b. Type and brand of alcoholic drink
 - c. Consumption location (home, restaurant, etc.)
 - d. Length of time over which alcohol was consumed
 - e. Location of first use and accompanying persons
- iii. Individual and environmental factors which can be linked to taking up alcohol
 - a. Use in the family
 - b. Use with friends
 - c. Knowledge of a person harmed by alcohol use
 - d. Risk perception for alcohol
 - e. Other harmful habits
 - f. Experience with other users
3. Spatial and temporal changes in the population consumption of alcohol

Results

Twenty-eight published scientific articles and one report (ESPAD) were included in the study. The studies were carried out in 26 provinces of Turkey, especially in city centers. The majority were performed on high school students mostly in the 15 to 17-year-old age range ($n = 29$). Three studies reported comparative results from various provinces (ESPAD, 2003; Ögel, Tamar, Evren, & Çakmak, 2001; Ögel et al., 2004). One out of eleven studies in Istanbul reported on the change in alcohol use over time (Ünlü & Evcin, 2014).

Many studies stated employing the cluster sampling method to select towns, schools, school year, and classes. Others combined this method with stratified sampling, forming strata by being a state or private school (Kara, Hatun, Aydoğan, Babaoğlu, & Gökalp, 2003), by socioeconomic level of the area (Şaşmaz et al., 2006), by school type, and by gender (Palanci, Saka, Tanrikulu, & Acemoğlu, 2009). Simple random sampling was the preferred sampling method in only two studies (Altuner, Engin, Güreler, Akyay, & Akgül, 2009; Gümüş, Kurt, Günay Ermurat, & Feyatörbay, 2011). The rest of the articles did not provide information on sample selection (Ağaoğlu, 2011; Aydoğan, 2011; Ceylan et al., 2003; Orak, Demet, Kılınc, Özcan, & Altın, 2005).

Sample size calculation was mentioned in a group of studies some with and others without details provided (Altuner & et al., 2009; Arslan, Terzi, Dabak, & Pekşen, 2012; Canbulat & Yıldız, 2011; Ceylan et al., 2003; Doğan, 2001; Eneçcan, Şahin, Erdal, Aktürk, & Kara, 2011; Evren et al., 2014; Güler, Güler, Ulusoy, & Bekar, 2009; İnandı et al., 2009; Kara et al., 2003; Keskinoglu et al., 2006; Ögel, Tamar, Evren, & Çakmak, 2000; Ögel et al., 2001; Ögel et al., 2004; Özyurt & Dinç, 2006; Palanci et al., 2009; Şaşmaz et al., 2006). One study sampled all students from all schools located in the center of a province (Eneçcan et al., 2011).

The response rates were not always reported. Those reported ranged between 66.5% (Eneçcan et al., 2011) and 100% (Kara et al., 2003).

The data on alcohol consumption was collected using tools developed for ESPAD (Doğan, 2001; ESPAD, 2003; Ögel et al., 2004; Pumariega, Burakgazi, Unlu, Prajapati, & Dalkilic, 2014), the study on WHO Health Behavior in School-aged Children (HBSC) (Özyurt & Dinç, 2006), Youth in Europe (Altuner et al., 2009; Ünlü & Evcin, 2014) and YRBSS (Youth Risk Behavior Surveillance System) (Arslan et al., 2012; Eneçcan et al., 2011; Kara et al., 2003; Pumariega et al., 2014). The Michigan Alcoholism Screening Test (MAST) (Ögel et al., 2004) and tools developed by the authors were also among the questionnaires mentioned.

In almost all studies students were asked about the use of alcohol in their lifetime, and the figure ranged between 4.4% and 65.0%. Questions on drinking during the last 12 months (Ceylan et al., 2003; ESPAD, 2003; İnandı et al., 2009;

Ögel et al., 2004) and during the previous month (Arslan et al., 2012; Ceylan et al., 2003; Doğan, 2001; Eneçcan et al., 2011; İnandı et al., 2009; Ögel et al., 2000; Ögel et al., 2001; Ögel et al., 2004; Şaşmaz et al., 2006) yielded figures from 3.8% to 35.0% and from 2.0% to 27.9% respectively. Two studies calculated the percentage of drinkers in İstanbul's town of Şişli at 10.4%, and in Manisa at 68.3% (Canbulat & Yıldız, 2011; Özyurt & Dinç, 2006).

Once a week consumption in the 15 to 17-year-old group was found to be 9.0%, and in the 12 to 17-year-old group, 2.3% (Ögel et al., 2001; Şaşmaz et al., 2006). In one study, between 0.2% and 2.1% of the participating students reported drinking every day (Ögel et al., 2001).

In many studies, students were asked about "being drunk" to elicit information on binge drinking. The results for being drunk at least once were between 2.0% and 39.7% (Ögel et al., 2000; Ögel et al., 2001; Özyurt & Dinç, 2006). The ESPAD survey found an average of 21.0% for being drunk within the last year. In another multi-provincial study, a lifetime experience of being drunk 40 times or more was found to be highest in the province of Van (2.0%) (Ögel et al., 2001).

The type of drink being consumed was asked in only one study, and the majority of students (11.0%) reported drinking beer (Özyurt & Dinç, 2006).

The onset age for drinking by age group and province were reported in the studies shown in Table 1. A small group of students (around 4.0%) started drinking before the ages of 8 and 9 (Kara et al., 2003; Orak et al., 2005).

Table 1
Ages That the Onset of Drinking were Reported in Studies

| | Province | Age group | Age at first use |
|----------------------|--|----------------|---|
| Doğan (2001) | Sivas | 15-17 | Beer 14 : 17.9% 15 : 26.3% 16 : 33.7% |
| Kara et al. (2003) | Kocaeli | 14-17 | Under 8: 4.4% 15-16: 40.4% |
| Ögel et al. (2004) | İstanbul, İzmir, Sivas, Diyarbakır, Adana, Mersin, Trabzon, Eskişehir, Kocaeli | 10-12 15-17 | Average 10-12 : age 11.6 15-17 : age 13.6 |
| Orak et al. (2005) | Burdur | 14-17 | Under 9: 4.1% |
| Şaşmaz et al. (2006) | Mersin | 12-17 | Average age: 13.4 |
| Özyurt et al. (2006) | Manisa | 11, 13, 15 | Average age: 11.6 |

In one study, one's grade in school, experience with smoking or drug-use, parental smoking, and male gender were identified as risk factors for exposure to alcohol (Şaşmaz et al., 2006).

The reasons and environment for the first exposure to drinking were asked in one study. Ending a relationship (40.6%), parents' drinking (28.1%) and being with friends (12.5%) ranked at the top of the list (Taşçı, Atan, Durmaz, Erkuş, & Sevil, 2005).

The students were asked about any individual and population -level risk factors which are likely to be linked to alcohol use (Table 2). A higher level of education in the family (Özyurt & Dinç, 2006) and a lower level of education for the mother (İnanlı et al., 2009) were both found to be related to drinking.

Table 2
Student Variables Investigated for Association With Alcohol Use

Factors related to exposure to alcohol

| |
|--|
| Mother's age |
| Mother's education level |
| Working mother |
| Smoking mother |
| Father's education level |
| Father's profession |
| Urban or rural area |
| Not living with parents |
| Socioeconomic and income level |
| Alcohol use in the family |
| Private or State school education |
| School achievement |
| Friends' alcohol use |
| Friends' smoking |
| Acquisition of alcohol |
| Reason for drinking and perceived benefits |
| Use of other substances |

Alcohol use in the family was found to be the lowest (8.3%) in a study from Istanbul (Evren et al., 2014). In another study, the risk of alcohol use was found to be doubled if there was use in the family (Şaşmaz et al., 2006).

Between 12.5% (Taşçı et al., 2005-İzmir) and 53.1% (Ünlü & Evcin, 2014-İstanbul) of students used alcohol, and students with friends who drink had 10.2 times the risk of drinking than those who do not (Özyurt & Dinç, 2006).

One study from Istanbul found lower rates, and another study higher rates of alcohol use in state schools compared to private schools (Evren & et al., 2014; Ögel, Taner, & Eke, 2006). Similarly, both high and low income levels were found to be associated with alcohol use (Evren et al., 2014; Ögel et al., 2004; Ögel et al., 2006; Özyurt & Dinç, 2006; Pumeriega et al., 2014).

In the province of Sivas, 53.9% in the 15 to 17-year-old group, students said that it was easy or very easy to acquire alcoholic drinks exclusive of beer (Doğan, 2001). Another survey found that 60.7% of students could get alcoholic drinks easily (Ögel et al., 2000).

A few studies analyzed the association between drinking and more than one dependent variable using the logistic regression analysis technique (Ögel et al., 2004; Özyurt & Dinç, 2006; Palanci et al., 2009; Şaşmaz et al., 2006).

The level of knowledge on the harms of alcohol was explored in a few studies (Gümüş et al., 2011; Orak et al., 2005; Taşçı et al., 2005). In one of these surveys, 9.7% of students did not think that alcohol was harmful (Gümüş et al., 2011). In two studies, almost half of the students knew about alcohol and its relationship to cirrhosis (Gümüş et al., 2011; Taşçı et al., 2005).

Discussion

Public Health research should aim to influence policies (Anderson et al., 2005; Lasswell, 1951). Therefore, researchers should determine the knowledge gap in their area of interest and target these knowledge gaps with their research. A wealth of cross-studies was found on harmful habits including alcohol use conducted on 18-year-old and under youths in various regions of Turkey. The European Action Plan to Reduce the Harmful Use of Alcohol promotes interventions which delay the onset of alcohol consumption among youth to improve health and social development (WHO Europe, 2012). Although there is evidence for the effectiveness of some school-based interventions on alcohol control, especially at an early stage (Hennessy & Tanner-Smith, 2014; Strøm et al., 2014), it is not clear whether the results are valid across cultures.

Implementation of any intervention on alcohol control should be justified. For example, the scale of alcohol related problems should be determined. In this

study, the figures on the number of drinkers from the reviewed research ranged widely and no information on the amount of individual consumption was available. Factors which are related to the onset of drinking, continued drinking, abstinence, and harmful drinking are also of importance from the perspective of policy making. For example, the level of knowledge on the harms of alcohol use was sought in only three studies through one question (Gümüş et al., 2011; Orak et al., 2005; Taşçı et al., 2005), even though ascertaining the knowledge gap would be helpful in informing the planning of school education programs.

In order for policies to be able to target early-onset alcohol use, which is one of the most important components of harmful drinking, its determinants should be examined. Six studies reported onset ages (Doğan, 2001; Kara et al., 2003; Orak et al., 2005; Ögel et al., 2004; Özyurt & Dinç, 2006; Şaşmaz et al., 2006) and 28.1% of students in one study reported their first use was with parents (Taşçı et al., 2005). This may justify parental education initiatives. İlhan, Demirbaş, and Doğan's study (2005), showed that first use of alcohol was with friends and in the streets, but in a study population with different characteristics.

Underage acquisition of alcoholic drinks may allude to weaknesses in the implementation of policies and measures as well as to carelessness in the families. In the two studies which covered this issue, more than half of the 15 to 17-year-old students said it was "easy" or "very easy" to get alcoholic drinks (Doğan, 2001; Ögel et al., 2000). It would be useful if students were asked how and from where they obtain their drinks.

Although studies purely focusing on alcohol use were also conducted (Özyurt & Dinç, 2006; Şaşmaz et al., 2006), the majority covered alcohol use among other risk factors, which resulted in limited information.

Establishing the spatial differences in alcohol use is helpful for determining areas to target with interventions. Valid geographical comparisons were not possible in this review due to differences in the ages of the study populations. The generalizability of the results was limited as the samples were selected mainly from urban areas or through non-probability sampling methods. Istanbul was over-represented in the literature with 11 studies conducted between the years 2000 and 2014. However, it was not possible to determine the presence of an upward or downward trend over the years due to the aforementioned methodology issues.

Limitations

Dissertations, reports, conference proceedings, and other material that were not available in the virtual environment were not included in the study.

Discussion of the validity and reliability of the findings is outside the scope of this work and therefore the academic quality of the included studies was not appraised.

Conclusions

1. Studies on alcohol consumption should have policy orientation to produce policy-relevant information.
2. School studies on alcohol should be generalizable to larger groups so that the epidemiology of drinking is understood.
3. Spatial and temporal changes in alcohol consumption should be measured through comparative studies.
4. New studies should aim to build on existing knowledge and to address the gaps.
5. The factors which are related to drinking should be investigated through in-depth work such as qualitative studies.

Kaynakça/References

- Ağaoğlu, Y. S. (2011). Lise ve dengi okul öğrencilerinin madde kullanımlarının incelenmesi: Tokat ili örneği. *Balikesir University Journal of Social Sciences Institute*, 14(26), 97-102.
- Altuner, D. T., Engin, N. T., Gürer, C. T., Akyay, İ. T., & Akgül, A. T. (2009). Madde kullanımı ve suç ilişkisi: Kesitsel bir araştırma. *Tıp Araştırmaları Dergisi*, 7(2), 87.
- Anderson, L. M., Brownson, R. C., Fullilove, M. T., Teutsch, S. M., Novick, L. F., Fielding, J., & Land, G. H. (2005). Evidence-based public health policy and practice: Promises and limits. *American Journal of Preventive Medicine*, 28, 226-230.
- Anderson, P., Chisholm, D., & Fuhr, D. (2009). Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Lancet*, 373(9682), 2234-2246.
- Arslan, H. N., Terzi, Ö., Dabak, Ş., & Pekşen, Y. (2012). Substance, cigarette and alcohol use among high school students in the provincial center of Samsun, Turkey. *Erciyes Medical Journal / Erciyes Tıp Dergisi*, 34(2), 79-84. doi:10.5152/etd.2012.19
- Aydoğan, İ. T. (2011). Genel liselerde öğrenim gören kız öğrencilerin problemleri. *Aile ve Toplum Eğitim-Kültür ve Araştırma Dergisi*, 7(24), 47.
- Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K., ... Rossow, I. (2010). *Alcohol: No ordinary commodity research and public policy* (2nd ed.) Oxford: Oxford University Press.
- Bakke, Ø. (2015). Are non-drinkers missing from the picture? *Substance Use and Misuse*, 50(4), 512-516.
- Brand, D. A., Saisana, M., Rynn, L. A., Pennoni, F., & Lowenfels, A. B. (2007). Comparative analysis of alcohol control policies in 30 countries. *Plos Medicine*, 4(4), e151.
- Canbulat, N., & Yıldız, S. (2011). Risky health behaviors of adolescents in Sisli district of Istanbul. *HEAD*, 8, 46-52.
- Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system*. Retrieved from <http://www.cdc.gov/HealthyYouth/yrbs/index.html>
- Ceylan, A. T., Özen, Ş. T., Palancı, Y. T., Saka, G. T., Aydın, Y. T., Kıvrak, Y. T., & Tangolar, Ö. T. (2003). Lise son sınıf öğrencilerinde anksiyete-depresyon düzeyleri ve zararlı alışkanlıklar: Mardin çalışması. *Anadolu Psikiyatri Dergisi*, 4(3), 144-150.
- Doğan, O. T. (2001). Sivas ilindeki lise öğrencilerinde madde kullanımı yaygınlığı. *Bağışlanlık Dergisi*, 2(2), 53-56

DuRant, R., Kreiter, S., Krowchuk, D., & Smith, J. (1999). The relationship between early age of onset of initial substance use and engaging in multiple health risk behaviors among young adolescents. *Archives of Pediatrics and Adolescent Medicine*, 153(3), 286-291.

Eneçcan, F. N., Şahin, E. M., Erdal, M., Aktürk, Z., & Kara, M. (2011). Edirne şehir merkezindeki lise öğrencilerinde riskli sağlık davranışlarının değerlendirilmesi. *TAF Preventive Medicine Bulletin*, 10(6), 687-700.

European School Survey Project on Alcohol and Other Drugs. (2003). *Alcohol and other drug use among students in 35 European Countries*. Retrieved from http://www.espad.org/uploads/espad_reports/2003/the_2003_espad_report.pdf

European School Survey Project on Alcohol and Other Drugs. (2012). *Impact survey*. Retrieved from <http://www.espad.org/>

Evren, C., Ogel, K., Demirci, A. C., Evren, B., Yavuz, B. G., & Bozkurt, M. (2014). Prevalence of lifetime tobacco, alcohol and drug use among 10th grade students in Istanbul. *Klinik Psikiyatri Dergisi*, 24(3), 201-210. doi:10.5455/bcp.20140131023259.

Gutjahr, E., Gmel, G., & Rehm, J. (2001). Relation between average alcohol consumption and disease: An overview. *European Addiction Research*, 7(3), 117-127.

Güler, N. T., Güler, G. T., Ulusoy, H. T., & Bekar, M. T. (2009). Lise öğrencileri arasında sigara, alkol kullanımı ve intihar düşüncesi sıklığı. *Cumhuriyet Tıp Dergisi*, 31(4), 340-345.

Gümüş, İ., Kurt, M., Günay Ermurat, D., & Feyatörbay, E. (2011). Lise öğrencilerinin madde bağımlılığı konusunda bilgi, tutum ve davranış düzeylerinin belirlenmesi: Erzurum örneği. *Ekev Akademi Dergisi*, 15(48), 321-334.

Hennessy, E. A., & Tanner-Smith, E. E. (2014). Effectiveness of brief school-based interventions for adolescents: A meta-analysis of alcohol use prevention programs. *Prevention Science*, 2014, 1-12. doi:10.1007/s11121-014-0512-0.

İlhan, İ. Ö., Demirbaş, H., & Doğan, Y. B. (2005). Çıracılık eğitime devam eden çalışan gençlerde alkol kullanımı üzerine bir çalışma. *Türk Psikiyatri Dergisi*, 16(4), 237-244.

İnandı, T., Özer, C., Akdemir, A., Akoğlu, S., Babayigit, C., Turhan, E., & Sangün, Ö. (2009). Violence, psychological features, and substance use in high school students in Hatay: A cross-sectional study. *Medical Journal of Trakya University / Trakya Üniversitesi Tıp Fakültesi Dergisi*, 26(3), 189-196.

Kara, B., Hatun, Ş., Aydoğan, M., Babaoğlu, K., & Gökalp, A. (2003). Evaluation of the health risk behaviors of high school students in Kocaeli. *Çocuk Sağlığı ve Hastalıkları Dergisi*, 46(1), 30-37.

Keskinoğlu, P. T., Karakuş, N. T., Piçakçiefe, M. T., Giray, H. T., Bilgiç, N. T., & Kılıç, B. T. (2006). İzmir'de lise öğrencilerinde sigara içme sıklığı ve içicilik davranışı üzerine sosyal öğrenmenin etkisi. *Toraks Dergisi*, 7(3), 190-195.

Lasswell, H. D. (1951). The policy orientation. In D. Lerner & H. D. Lasswell (Eds.), *The policy sciences: Recent developments in scope and method* (pp. 3-15). Stanford, CA: Stanford University Press.

Orak, S., Demet, Y., Kılınç, S., Özcan, M., & Altın, S. (2005, Kasım). *Burdur şehrindeki lise öğrencilerinin sigara, alkol ve uyuşturucu madde alışkanlıkları yönünden araştırılması*. I. Burdur Sempozyumu'nda sunulan bildiri, Burdur. <http://sempozyum.mehmetakif.edu.tr/1burdursempozyumu/cilt9/9.24.pdf> adresinden edinilmiştir.

Ögel, K. T., Çorapçıoğlu, A., Sır, A., Tamar, M., Tot, Ş., Doğan, O., ... Liman, O. (2004). Dokuz ilde ilk ve ortaöğretim öğrencilerinde tütün, alkol ve madde kullanım yaygınlığı. *Türk Psikiyatri Dergisi*, 15(2), 112-118.

Ögel, K. T., Tamar, D., Evren, C., & Çakmak, D. (2001). Lise gençleri arasında sigara, alkol ve madde kullanım yaygınlığı. *Türk Psikiyatri Dergisi*, 12(1), 47-52.

Ögel, K., Tamar, D., Evren, C., & Çakmak, D. (2000). İstanbul'da lise gençleri arasında sigara, alkol ve madde kullanım yaygınlığı. *Klinik Psikiyatri*, 4, 242-345.

Ögel, K., Taner, S., & Eke, C. Y. (2006). Onuncu sınıf öğrencileri arasında tütün, alkol ve madde kullanım yaygınlığı: İstanbul örnekleme. *Journal of Dependence*, 7(1), 18-23.

Özyurt, B. T., & Dinç, G. T. (2006). Manisa'da okul çağı çocuklarda alkol kullanım sıklığı ve alkol kullanımı ile ilişkili faktörler. *Türk Silahlı Kuvvetleri Koruyucu Hekimlik Bülteni*, 5(2), 61-71.

Palanci, Y., Saka, G., Tanrikulu, A. C., & Acemoğlu, H. (2009). Cigarette use frequency and the affecting factors in primary and high school students in Diyarbakir. *Tüberküloz ve Toraks*, 57(2), 136-144.

Paschall, M., Grube, W., & Kypri, K. (2009). Alcohol control policies and alcohol consumption by youth: A multi-national study. *Addiction*, 104, 1849-1855.

Pumariega, A. J., Burakgazi, H., Unlu, A., Prajapati, P., & Dalkilic, A. (2014). Substance abuse: Risk factors for Turkish youth. *Klinik Psikofarmakoloji Bülteni*, 24(1), 5-14. doi:10.5455/bcp.20140317061538

Sağlık Bakanlığı. (2006a). *Türkiye hastalık yükü çalışması, 2004*. http://ekutuphane.tu-sak.gov.tr/kitaplar/turkiye_hastalik_yuku_calismasi.pdf adresinden edinilmiştir.

Sağlık Bakanlığı. (2006b). *Ulusal hanehalkı araştırması, 2003*. http://ekutuphane.tusak.gov.tr/kitaplar/ulusal_hane_halki_arastirmasi_2003_temel_bulgulari.pdf adresinden edinilmiştir.

Sağlık Bakanlığı. (2013). *Türkiye kronik hastalıklar ve risk faktörleri sıklığı çalışması*. http://thsk.saglik.gov.tr/Dosya/kronik_hastaliklar/tkh-final-raporu-tr.pdf adresinden edinilmiştir.

Strøm, K., H., Adolfsen, F., Fossum, S., Kaiser, S., & Martinussen, M. (2014). Effectiveness of school-based preventive interventions on adolescent alcohol use: A meta-analysis of randomized controlled trials. *Substance Abuse Treatment, Prevention & Policy*, 9(1), 31-55. doi:10.1186/1747-597X-9-48

Şaşmaz, T. T., Buğdaycı, R. T., Toros, F. T., Kurt, A. T., Tezcan, H. T., Öner, S. T., & Çamdeviren, H. T. (2006). Ergenlerde alkol içme prevalansı ve olası risk faktörleri: Okul tabanlı, kitlesel bir çalışma. *Türk Silahlı Kuvvetleri Koruyucu Hekimlik Bülteni*, 5(2), 94-104.

Taççı, E., Atan, Ş. Ü., Durmaz, N., Erkuş, H., & Sevil, Ü. (2005). Kız meslek lisesi öğrencilerinin madde kullanma durumları. *Journal of Dependence*, 6(3), 122-128.

Ünlü, A., & Evcin, U. (2014). 2008 ve 2010 Yılları arasında İstanbul Bağcılar ilçesinde gençler arasında madde kullanım yaygınlığı, risk ve koruma faktörlerinin değerlendirilmesi. *Anadolu University Journal of Social Sciences*, 14(3), 127-140.

World Health Organization. (2014). *Global health observatory data repository*. Retrieved from <http://apps.who.int/gho/data/node.main.A1025?lang=en>

World Health Organization Europe. (2012). *European action plan to reduce the harmful use of alcohol 2012–2020*. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0008/178163/E96726.pdf?ua=1

World Health Organization Europe. (2014). *Global status report on alcohol and health*. Retrieved from http://www.who.int/iris/bitstream/10665/112736/1/9789240692763_eng.pdf?ua=1